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10/709,244

04/23/2004

Tsutomu Horie

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10/06/2006

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EXAMINER

AKANBI, ISIAKA O

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/709,244

Applicant(s)

HORIE, TSUTOMU

Examiner

Isiaka O. Akanbi

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Amendment

The amendment file 20 July 2006 has been entered into this application.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7 and 13 are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter.

Claims 7 and 13 recites the limitation "wherein said evaluation pattern has a different shape than said device pattern, said evaluation pattern having a defect". Merely evaluation pattern that has a different shape than said device pattern, said evaluation pattern having a defect would not appear to be sufficient to constitute a tangible result, since the outcome of the evaluation step has not been used in a disclosed practical application nor made available in such a manner that's it's usefulness in a disclosed practical application can be realized. See OG Notices: 22 November 2005, "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Toyama (2002/0194576 A1).

As regard to claim 1, Toyama discloses a reticle having a device pattern formed in an exposure area and evaluation pattern(s) formed in an area different from said exposure area , for evaluating transferability onto a transfer target of any defect in said exposure area and wherein said evaluation pattern has a different shape than said device pattern, said evaluation pattern having a defect (figs 1 and 10)(see Abstract)(page 1, par. 0001, 0004 and 0006).

As to claim 2, according to claim 1, Toyama discloses wherein said evaluation pattern has a defect of which transferability onto said transfer target being already evaluated (page 1, par. 0001).

As to claim 3, Toyama discloses wherein said evaluation patterns are provided corresponding to types of defects possibly generated in said exposure area, and arranged by types of said defect (page 1, par. 0006)(page 2, par. 0041)(page 3, par. 0047).

As to claims 4 and 5, Toyama discloses wherein a plurality of said evaluation patterns individually having different defect sizes are arranged by said types of defect and wherein said evaluation patterns, respectively having an untransferable largest defect size, are arranged by said types of defect (page 3, par. 0047 and 0049).

As to claim 6, Toyama discloses wherein said type of said defect is at least any one of chipping, projection, short-circuiting, line breakage, isolated residue and isolated pinhole (page 3, pars. 0031, 0038-0040).

As regard to claims 7, 13 and 15, Toyama discloses a reticle inspection method comprising of a pattern forming step for forming a device pattern in an exposure area, and also for forming evaluation pattern(s) for evaluating transferability of any defect onto a transfer target in said exposure area, in an area different from said exposure area on the same reticle, a defect inspection step for inspecting presence or absence of any defect in said exposure area on said reticle and an evaluation step for evaluating transferability onto said transfer target of any defect detected in said defect inspection step, based on said detected defect and said evaluation pattern and wherein said evaluation pattern has a different shape than said device pattern, said evaluation pattern having a defect (figs 1 and 10)(see Abstract)(page 1, par. 0001, 0004, 0006, 0042-0046, 0066 and 0070).

As to claim 8, Toyama discloses wherein said evaluation pattern is a pattern having a defect possibly generated in said exposure area, and the method further comprises a preliminary evaluation step for evaluating, prior to said pattern formation step, the transferability of said evaluation pattern onto said transfer target (figs 1 and 10)(see Abstract)(page 1, par. 0001, 0004, 0006, 0042-0046, 0066 and 0070)(page 1, pars. 0025, 0029 and 0039).

As to claims 9, 14 and 16, Toyama discloses wherein said evaluation step comprising a comparison step for comparing any defect detected in said defect inspection step with said evaluation pattern and a correction judging step for judging necessity of correction of said detected defect based on a comparative result obtained from said comparison step (page 1, pars. 0006, 0012, 0015, 0018)(page 2, pars. 0034)(page 6, par. 0109).

As to claims 10 and 12, Toyama discloses wherein, in said pattern forming step, said evaluation patterns corresponding to types of defects possibly generated in said exposure area on said reticle are formed on said reticle by types of said defect (page 1, par. 0006)(page 2, par. 0041)(page 3, par. 0047) and in said comparison step, any defect detected in the defect inspection step is compared with said evaluation patterns corresponding to said types of defect and respectively having an untransferable largest defect size (page 3, par. 0047 and 0049)(col. 6, line 22-39) .

As to claim 11, Toyama discloses an information entering step (s110) for entering an information on any defect judged, in said correction judging step, as being in need of correction (fig.1)(page 4, par 0069 and 0073).

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed in the attached form PTO-892 teach of other prior art reticle inspection apparatus/method that may anticipate or obviate the claims of the applicant's invention.

Response to Arguments

Applicant's arguments/remarks, see pages 13-15, filed 20 July 2006, with respect to the rejection(s) of claim(s) 1-2, 7-11 and 13-16 under 35 U.S.C. 102(b) and claims 3-6 and 12 that

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are allowable subject matters have been fully considered. Therefore, the rejection under 35 U.S.C. 102(b) has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of claim amendment and claims 3-6 and 12 the allowable subject matters are rejected.

Conclusion

Fax/Telephone Information

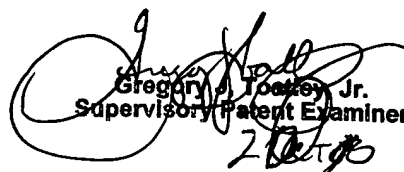
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isiaka Akanbi whose telephone number is (571) 272-8658. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on (571) 272-2059. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isiaka Akanbi

September 30, 2006


Gregory J. Toatley, Jr.
Supervisory Patent Examiner